

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:	Date: May 29, 2008
Applicant : Todd C. WERNER	Attorney Docket : G-244
Application No. : 10/709,289	Customer No. : 00919
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Examiner : Severson, J.	Group Art Unit : 3653
Title : MULTI-BIN PRINTER	

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Sir:

CORRECTED APPEAL BRIEF UNDER 37 C.F.R. § 41.37

In support of the Notice of Appeal filed November 27, 2007, and pursuant to 37 C.F.R. § 41.37, Appellant presents this corrected brief. This corrected brief is being timely submitted within one month of the mailing date of the Notification of Non-Compliant Appeal Brief, which was mailed April 30, 2008.

This is an appeal of the rejection of claims 1-13 set forth in the final Office Action mailed August 27, 2007.

If any additional fees are required or if the payment provided is insufficient, Appellant requests that the required fees be charged to Deposit Account No. 16-1885.

TABLE OF CONTENTS

I. Real Party in Interest.....3

II. Related Appeals and Interferences.....4

III. Status of Claims.....5

IV. Status of Amendments.....6

V. Summary of Claimed Subject Matter.....7

VI. Grounds of Rejection to be Reviewed on Appeal.....11

VII. Argument.....12

VIII. Claims Appendix.....22

IX. Evidence Appendix.....31

X. Related Proceedings Appendix.....32

I. Real Party in Interest

The real party in interest in this appeal is Pitney Bowes Inc., a Delaware corporation, the assignee of the entire right, title, and interest in this application.

II. Related Appeals and Interferences

There are no related appeals or interferences, of which Appellant, Appellant's legal representative, or Assignees are aware, that will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. Status of Claims

Claims 1-13 are pending in this application. Claims 1-13 are rejected.

Appellant hereby appeals the rejection of claims 1-13.

The claims on appeal are set forth in the Claims Appendix in Section VIII.

IV. Status of Amendments

No amendments under 37 C.F.R. § 1.116 have been filed.

V. Summary of Claimed Subject Matter

The invention, as recited in claim 1, is directed to a machine, comprising an elongate conveyor system (12) for transporting items to a hopper (14) (See paragraphs 20 and 62), a pivotally-mounted friction belt (17) positioned with respect to said hopper such that an item in said hopper is substantially fully engaged along its length when said pivotally-mounted friction belt is in a fully unpivoted position and such that an item in said hopper is engaged only at a leading end thereof when said pivotally-mounted friction belt is in a fully pivoted position (See paragraphs 21 and 64), a printing and drying station (18, 20) where ink is applied to said items and dried (See paragraph 65), an elongate discharge apparatus (See paragraph 20), said elongate discharge apparatus including a plurality of longitudinally-spaced apart deflectors (30a, 30b, 30c) for diverting preselected items from a first path of travel to a second path of travel (See paragraphs 24 and 68), said elongate discharge apparatus including a plurality of bins (32a, 32b, 32c), there being as many bins as there are deflectors (See paragraphs 29 and 68), said elongate conveyor system and said elongate discharge apparatus being disposed in parallel relation to one another (See paragraph 70), said printing and drying station being disposed in interconnecting relation to said elongate conveyor system and said elongate discharge apparatus, a first end of said printing and drying station being positioned at a discharge end of said elongate conveyor system, a second end of said printing and drying station being positioned at an input end of said elongate discharge apparatus (See paragraphs 69 and 70), said elongate conveyor system, said printing and drying station, and said elongate discharge system collectively forming a square

"U"-shaped configuration (See paragraph 69), whereby an operator of said machine has unimpeded access to said elongate conveyor system, said printing and drying station, and said elongate discharge apparatus (See paragraph 70).

The invention, as recited in claim 12, is directed to a machine, comprising an elongate conveyor system (12) for transporting items to a hopper (14) (See paragraphs 20 and 62), a printing and drying station (18, 20) where ink is applied to said items and dried (See paragraph 65), an elongate discharge apparatus (See paragraph 20), said elongate discharge apparatus including a plurality of longitudinally-spaced apart deflectors (30a, 30b, 30c) for diverting preselected items from a first path of travel to a second path of travel (See paragraphs 24 and 68), said elongate discharge apparatus including a plurality of bins (32a, 32b, 32c), there being as many bins as there are deflectors (See paragraphs 29 and 68), said printing and drying station being disposed in interconnecting relation to said elongate conveyor system and said elongate discharge apparatus (See paragraphs 69 and 70), a plurality of elongate O-rings (50) rotatably mounted on said elongate discharge apparatus along said second path of travel in parallel, vertically spaced apart relation to one another (See paragraphs 31 and 79), a plurality of elongate flat belts (52) rotatably mounted on said elongate discharge apparatus along said second path of travel in parallel, vertically spaced apart relation to one another and in confronting relation to said plurality of O-rings (See paragraphs 31 and 79), said plurality of O-rings and said plurality of flat belts rotating in opposite directions at a common speed so that items sandwiched between them are transported along said second path of travel (See paragraph 83), a plurality of vertically spaced

apart protruding rollers (56a) positioned in protruding relation to said second path of travel so that items traveling along said second path of travel are constrained to deviate from said second path of travel upon encountering said plurality of protruding rollers (See paragraphs 79 and 80), said items, upon deviating from said second path of travel, causing said O-rings to displace from respective positions of repose, resiliency of each O-ring of said first plurality of O-rings snapping a trailing end of each item back into the second path of travel as each item clears the protruding rollers so that the trailing end of a lead item does not interfere with a leading end of an item in trailing relation to said lead item (See paragraphs 80 and 87).

The invention, as recited in claim 13, is directed to a machine, comprising an elongate conveyor system (12) for transporting items to a hopper (14) (See paragraphs 20 and 62), a printing and drying station (18, 20) where ink is applied to said items and dried (See paragraph 65), an elongate discharge apparatus (See paragraph 20), said elongate discharge apparatus including a plurality of longitudinally-spaced apart deflectors (30a, 30b, 30c) for diverting preselected items from a first path of travel to a second path of travel (See paragraphs 24 and 68), said elongate discharge apparatus including a plurality of bins (32a, 32b, 32c), there being as many bins as there are deflectors (See paragraphs 29 and 68), said printing and drying station being disposed in interconnecting relation to said elongate conveyor system and said elongate discharge apparatus (See paragraphs 69 and 70), a plurality of vertically spaced apart protruding rollers (56a) positioned on said elongated discharge apparatus in protruding relation to said second path of travel so that items traveling along said second path of

travel are constrained to deviate from said second path of travel upon encountering said plurality of protruding rollers (See paragraphs 79 and 80), a nip defined by a pair of opposed rollers (48a, 48b, 48c), said nip being longitudinally spaced apart from and disposed between said protruding rollers and a discharge bin of said plurality of discharge bins (See paragraphs 78 and 79), an air nozzle (60) mounted downstream of said protruding rollers, between said protruding rollers and said nip, said items being envelopes having flaps (See paragraph 89), said air nozzle applying a positive air pressure to respective flaps of envelopes as respective trailing ends of said envelopes clear said protruding rollers, whereby said respective flaps are pushed into overlying relation to a main body of said envelopes so that said flaps are not rammed by the flaps of trailing items (See paragraph 89).

VI. Grounds of Rejection to be Reviewed on Appeal

A. Claims 1-6, 9, 10, and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,613,998 to DeWitt et al. ("DeWitt") in view of U.S. Patent No. 5,460,273 to Stevens et al. ("Stevens") and U.S. Patent No. 5,253,859 to Ricciardi ("Ricciardi").

B. Claim 7 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over DeWitt in view of Stevens and Ricciardi and further in view of U.S. Patent No. 6,969,059 to Gafner ("Gafner").

C. Claims 8 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over DeWitt in view of Stevens and Ricciardi and further in view of U.S. Patent No. 5,772,200 to Sorensen ("Sorensen").

D. Claim 11 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over DeWitt in view of Stevens and Ricciardi and further in view of U.S. Patent No. 6,822,182 to Kechel ("Kechel").

VII. Argument

A. Claims 1-6, 9, 10, and 12 are patentable over DeWitt in view of Stevens and Ricciardi

According to M.P.E.P. § 2143.03 (citing In re Royka, 180 USPQ 580 (CCPA 1974)), “[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” Because DeWitt, Stevens, and Ricciardi fail to teach or suggest Appellant’s claimed combination recited in independent claims 1 and 12, Appellant respectfully submits that a prima facie case of obviousness has not been established and that the rejection should be reversed.

DeWitt teaches a “mail processing device 10. . . suited to process mail having an address that is difficult to read” (DeWitt at col. 2, lines 61-65) having a “feeder 30” (Id. at col. 5, line 6 and Fig. 1), an “imaging section 45” (Id. at line 28), a “buffer 50” (Id. at col. 6, line 18), a “printer 70” (Id. at col. 7, line 18), a “verifier 85” (Id. at line 39), and a “stacker 95” (Id. at line 55).

1. Claim 1

As at least partially acknowledged in the Office Action at page 3, DeWitt fails to teach or suggest a “pivotally-mounted friction belt positioned with respect to said hopper such that an item in said hopper is substantially fully engaged along its length when said pivotally-mounted friction belt is in a fully unpivoted position and such that an item in said hopper is engaged only at a leading end thereof when said pivotally-mounted friction belt is in a fully pivoted position,” as recited in claim 1.

Appellant notes that the “feeder 30” of DeWitt is described at col. 4, lines 40-48 and shown in Figs. 1, 2, 4, and 5.

Ricciardi teaches a “device for controlling the pressure in a stack when stacking sheet-like articles such as envelopes that are continuously being fed into the stack.” Ricciardi at col. 1, lines 7-10. In the device of Ricciardi, the “shaft 34 supporting rollers 32a and 32b is axially biased toward the stack of envelopes 46, and forces a portion 64 of belts 26a and 26b outwardly and into contact with the last stacked envelope 50 of the stack 46.” *Id.* at col. 4, lines 48-51. See also Fig. 1 of Ricciardi.

However, Ricciardi fails to overcome the deficiencies of DeWitt discussed above.

It was asserted in the Office Action at page 3 that “Ricciardi teaches such an apparatus in order to counteract the ever increasing force applied by the stack against the envelope conveying belt system. See Ricciardi, col. 3, lines 19 *et seq.*” Appellant respectfully disagrees.

Ricciardi at col. 3, lines 19 *et seq.* provides as follows:

The belt portion extending around the axially moveable roller is biased to pivot into contact with the stack of articles with a force that counteracts the ever increasing force applied by the stack against the envelope conveying belt system.

Appellant respectfully submits that the cited portion of Ricciardi fails to teach or suggest a “pivotally-mounted friction belt positioned with respect to said hopper such that an item in said hopper is substantially fully engaged along its length when said pivotally-mounted friction belt is in a fully unpivoted position and such that an item in said hopper is engaged only at a leading end thereof when said pivotally-mounted friction belt is in a fully pivoted position,” as recited in claim 1.

In fact, there is no teaching of the claimed subject matter in the entire Ricciardi reference. For example, as discussed above, the “shaft 34” of Ricciardi is biased so

that it “forces a portion 64 of belts 26a and 26b outwardly and into contact with the last stacked envelope 50 of the stack 46.” Ricciardi at col. 4, lines 48-51. (Emphasis added.)

It was further asserted in the Office Action at page 8 that “Ricciardi discloses, ‘[t]he belt portion extending around the axially movable roller is biased to pivot into contact with the stack of articles.’ Col. 3, lines 19-21.” Appellant respectfully submits, as discussed above, that the cited portion of the Ricciardi reference fails to provide a teaching or suggestion of the subject matter of claim 1.

Stevens was cited in the Office Action at page 4 for its teaching of the “interchangeability of the U-shape conveyor layout to the ‘in line’ configuration.” However, Stevens fails to overcome the deficiencies of DeWitt and Ricciardi discussed above.

2. Claim 12

DeWitt fails to teach or suggest a “plurality of elongate O-rings rotatably mounted on said elongate discharge apparatus along said second path of travel,” a “plurality of elongate flat belts rotatably mounted on said elongate discharge apparatus along said second path of travel. . . in confronting relation to said plurality of O-rings,” “said items, upon deviating from said second path of travel, causing said O-rings to displace from respective positions of repose,” and “resiliency of each O-ring of said first plurality of O-rings snapping a trailing end of each item back into the second path of travel as each item clears the protruding rollers so that the trailing end of a lead item does not interfere with a leading end of an item in trailing relation to said lead item,” as recited in claim 12.

Appellant notes that in the Office Action there is no specific application of the cited art to claim 12. With regard to claim 5, it was asserted in the Office Action at page 5 that Fig. 1 #95 of DeWitt "discloses belts, o-rings (i.e. belts), which sandwich the mail diverted by the deflector. Further, see how belt touching the deflector (belt 1) is deformed by the protruding roller of the opposite belt (belt 2) so that inherently belt 1 will snap the trailing end of the mail." To the extent the above assertions are considered applicable to claim 12, Appellant respectfully disagrees.

First, by the above statement, the Examiner is apparently asserting the equivalence of belts and O-rings. Even if the belts of DeWitt were considered O-rings, as apparently suggested in the Office Action, DeWitt would fail to teach or suggest a "plurality of elongate O-rings rotatably mounted on said elongate discharge apparatus" and a "plurality of elongate flat belts rotatably mounted on said elongate discharge apparatus along said second path of travel. . . in confronting relation to said plurality of O-rings." Indeed, with the suggested interpretation, DeWitt would in fact teach O-rings in opposing relation to other O-rings, not "belts. . . in confronting relation to said plurality of O-rings," as claimed.

The device of the present invention operates to snap the trailing edges, as claimed, because the O-rings and the belts have different resiliencies. Specifically, the O-rings are softer than the belts. When an item passing between the O-rings and the confronting belts encounters the protruding rollers, the O-rings deform more than the belts, and thus "displace from respective positions of repose, resiliency of each O-ring of said first plurality of O-rings snapping a trailing end of each item back into the second path of travel as each item clears the protruding rollers," as claimed. There is no

teaching or suggestion of such an arrangement, either in the explicit teaching of DeWitt or in the interpretation suggested in the Office Action, both discussed above. Rather, the rejection appears to rely on hindsight and the teaching of Appellant's own disclosure.

Finally, Appellant respectfully submits that even if the device of DeWitt were provided with opposing belts and O-rings, counter to its explicit teachings, the modified device would not act to snap a "trailing end of each item back into the second path of travel as each item clears the protruding rollers so that the trailing end of a lead item does not interfere with a leading end of an item in trailing relation to said lead item," as recited in claim 12.

For example, as described at least in paragraphs 85 through 87 of the instant application and as shown in Fig. 5, a gap is formed in the path of travel of an envelope between the O-ring 50 and the belt 52 after the "protruding roller 56a." In the device of the invention, as "the trailing end of each item clears the protruding rollers, O-rings 50 snap back under their own resiliency," which "snaps the trailing end of the item. . . back into the path of travel that was being followed." As-filed application at paragraph 87. As shown in Fig. 5, when the trailing end of the item is snapped, the item moves through the gap between the O-ring and the belt.

By contrast, in the device of DeWitt there is no gap between the belts in the "stacker 95," shown in Figs. 1 and 3. Unlike the device according to the invention, the stacker of DeWitt comprises a belt arrangement, as described in the Office Action at page 5, that maintains a mailpiece under continuous compression to allow positive control of the mailpiece. Under such an arrangement, there is no physical possibility

that a mailpiece would snap a “trailing end of each item back into the second path of travel as each item clears the protruding rollers so that the trailing end of a lead item does not interfere with a leading end of an item in trailing relation to said lead item,” as recited in claim 12.

Finally, Appellant respectfully submits that the inherency rejection of claim 5 (presumed to be applicable to claim 12) is unsupported and improper and should be reversed.

According to M.P.E.P. § 2112 (citing In re Rijckaert, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993)), the “fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic.” Moreover, it was held in In re Robertson, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) that

[t]o establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'

In the present case, the “stacker 95” of DeWitt comprises a conventional compressive arrangement of belts arranged to maintain positive control over a mailpiece. Moreover, the missing descriptive matter, namely, the snapping of the mailpiece by the device of DeWitt is not “necessarily present in the thing described in the reference,” as required by the M.P.E.P.

For at least the above reasons, the rejection of claim 12 should be reversed.

Ricciardi and Stevens, discussed above, fail to overcome the deficiencies of DeWitt.

Because the combined teachings of DeWitt, Stevens, and Ricciardi fail to teach or suggest Appellant's claimed combination recited in independent claims 1 and 12, as required by M.P.E.P. § 2143, Appellant respectfully submits that a prima facie case of obviousness has not been established and that the rejection should be reversed.

B. Gafner fails to overcome the deficiencies of DeWitt, Stevens, and Ricciardi

As discussed above, claim 1 is patentable over DeWitt in view of Stevens and Ricciardi. Gafner, cited for its teaching of a suction box, does not supply the above-noted deficiencies of DeWitt, Stevens, and Ricciardi. Because the teachings of DeWitt, Stevens, Ricciardi, and Gafner fail to teach or suggest Appellant's claimed combination recited in independent claim 1, as required by M.P.E.P. § 2143, Appellant respectfully submits that a prima facie case of obviousness has not been established and that the rejection should be reversed.

C. Claims 8 and 13 are patentable over DeWitt, Stevens, and Ricciardi in view of Sorensen

1. Claim 8

As discussed above, claim 1 is patentable over DeWitt in view of Stevens and Ricciardi. Sorensen, cited for its teaching of air nozzles, does not supply the above-noted deficiencies of DeWitt, Stevens, and Ricciardi. Because the teachings of DeWitt, Stevens, Ricciardi, and Sorensen fail to teach or suggest Appellant's claimed combination recited in independent claim 1, as required by M.P.E.P. § 2143, Appellant

respectfully submits that a prima facie case of obviousness has not been established and that the rejection should be reversed.

2. Claim 13

As at least partially acknowledged in the Office Action at page 6, DeWitt fails to teach or suggest an “air nozzle mounted downstream of said protruding rollers, between said protruding rollers and said nip, said items being envelopes having flaps,” and “said air nozzle applying a positive air pressure to respective flaps of envelopes as respective trailing ends of said envelopes clear said protruding rollers, whereby said respective flaps are pushed into overlying relation to a main body of said envelopes so that said flaps are not rammed by the flaps of trailing items,” as recited in claim 13.

Sorensen teaches a “feeder for separating sheet form elements, such as envelopes, from a stack.” Sorensen at Abstract. In the device of Sorensen, “[o]ptionally, an air blower may be provided to help separate the sheet form elements in the stack and, when envelopes are the sheet form element, to keep the envelope flaps closed while the individual envelopes are separated.” Id. at col. 2, line 66 to col. 3, line 2. Sorensen further provides that “[i]f particularly heavy sheet form elements or large capacity hoppers are used. . . the hopper may be provided with a blower to direct air laterally at the stack to help separate the sheets in the stack.” Id. at col. 5, lines 55-63. Lastly, Sorensen describes an embodiment of a device having “sets of nozzles 74” providing air that “penetrates between envelopes in the stack 12.” Id. at col. 6, lines 47-53.

However, Sorensen fails to overcome the deficiencies of DeWitt discussed above.

It was asserted in the Office Action at page 6 that “Sorensen teaches the use of air nozzles to keep the envelope flaps closed. See Sorensen, col. 2, line 66 *et seq.*”

As discussed above, Sorensen teaches that an “air blower may be provided to help separate the sheet form elements in the stack and, when envelopes are the sheet form element, to keep the envelope flaps closed while the individual envelopes are separated.” *Id.* Appellant respectfully submits that neither the generic teaching of using “air nozzles to keep the envelope flaps closed,” as asserted in the Office Action, nor the specific teaching of Sorensen of using air to separate forms, as described above, meets the requirements of M.P.E.P. § 2143.03, namely, that “all the claim limitations must be taught or suggested by the prior art.”

Stevens and Ricciardi, discussed above, fail to overcome the deficiencies of DeWitt and Sorensen.

Because the combined teachings of DeWitt, Stevens, Ricciardi, and Sorensen fail to teach or suggest Appellant’s claimed combination recited in independent claim 13, as required by M.P.E.P. § 2143, Appellant respectfully submits that a prima facie case of obviousness has not been established and that the rejection should be reversed.

D. Kechel fails to overcome the deficiencies of DeWitt, Stevens, and Ricciardi

As discussed above, claim 1 is patentable over DeWitt in view of Stevens and Ricciardi. Kechel, cited for its teaching of separator cards, does not supply the above-noted deficiencies of DeWitt, Stevens, and Ricciardi. Because the teachings of DeWitt, Stevens, Ricciardi, and Kechel fail to teach or suggest Appellant’s claimed combination

recited in independent claim 1, as required by M.P.E.P. § 2143, Appellant respectfully submits that a prima facie case of obviousness has not been established and that the rejection should be reversed.

E. Conclusion

For the reasons set forth above, Appellant respectfully submits that claims 1, 12, and 13 are patentable over the references applied in the final Office Action. Claims 2-11 depend directly or indirectly from claim 1 and therefore should be allowable for at least the same reasons claim 1 is allowable. Accordingly, Appellant respectfully requests reversal of the claim rejection and allowance of the pending claims.

To the extent any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this Appeal Brief, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 16-1885.

Respectfully submitted,

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VIII. Claims Appendix

1. (Previously Presented) A machine, comprising:
 - an elongate conveyor system for transporting items to a hopper;
 - a pivotally-mounted friction belt positioned with respect to said hopper such that an item in said hopper is substantially fully engaged along its length when said pivotally-mounted friction belt is in a fully unpivoted position and such that an item in said hopper is engaged only at a leading end thereof when said pivotally-mounted friction belt is in a fully pivoted position;
 - a printing and drying station where ink is applied to said items and dried;
 - an elongate discharge apparatus;
 - said elongate discharge apparatus including a plurality of longitudinally-spaced apart deflectors for diverting preselected items from a first path of travel to a second path of travel;
 - said elongate discharge apparatus including a plurality of bins, there being as many bins as there are deflectors;
 - said elongate conveyor system and said elongate discharge apparatus being disposed in parallel relation to one another;
 - said printing and drying station being disposed in interconnecting relation to said elongate conveyor system and said elongate discharge apparatus;
 - a first end of said printing and drying station being positioned at a discharge end of said elongate conveyor system;
 - a second end of said printing and drying station being positioned at an input end of said elongate discharge apparatus;

said elongate conveyor system, said printing and drying station, and said elongate discharge system collectively forming a square "U"-shaped configuration; whereby an operator of said machine has unimpeded access to said elongate conveyor system, said printing and drying station, and said elongate discharge apparatus.

2. (Original) The machine of claim 1, further comprising:
a sensor including a signal-generating means that controls an instantaneous position of each deflector of said plurality of deflectors so that a preselected group of items may be diverted to a particular bin of said plurality of bins.

3. (Original) The machine of claim 1, further comprising:
each deflector of said plurality of deflectors having a first position and a second position;
said first position of each deflector being disposed in non-interfering relation to said first path of travel of an item so that said item remains on said first path of travel after passing said deflectors;
said second position of each deflector disposed in interfering relation to said first path of travel of said item so that said item is diverted to said second path of travel upon encountering said deflectors in said second position.

4. (Original) The machine of claim 3, further comprising:
each deflector of said plurality of deflectors being pivotally mounted;
a solenoid having an actuator linked to each deflector;
said solenoid having an inactivated state where said actuator maintains each
deflector in said first position; and

said solenoid having an activated state where said actuator causes pivotal
motion of each deflector and places each deflector in said second position.

5. (Original) The machine of claim 4, further comprising:
a plurality of elongate O-rings rotatably mounted along said second path of travel
in parallel, vertically spaced apart relation to one another;

a plurality of elongate flat belts rotatably mounted along said second path of
travel in parallel, vertically spaced apart relation to one another;

said plurality of O-rings disposed in confronting relation to said plurality of flat
belts;

said plurality of O-rings and said plurality of flat belts rotating in opposite
directions at a common speed so that an item sandwiched between them is transported
along said second path of travel;

each O-ring of said plurality of O-rings having a position of repose and being
inherently resilient so that each O-ring of said plurality of O-rings quickly returns to said
position of repose when displaced away from said position of repose and then released;

a plurality of vertically spaced apart protruding rollers positioned in protruding
relation to said second path of travel so that an item traveling along said second path of

travel is constrained to deviate from said second path of travel upon encountering said plurality of protruding rollers;

said items, upon deviating from said second path of travel, causing said O-rings to displace from their respective positions of repose;

the inherent resiliency of each O-rings of said first plurality of O-rings snapping a trailing end of said leading item back into the second path of travel as each item clears the protruding rollers so that the trailing end of each item does not interfere with the leading end of an item in trailing relation to said leading item.

6. (Original) The machine of claim 5, further comprising:

a nip defined by a pair of opposed rollers;

said nip being longitudinally spaced apart from and disposed between said protruding rollers and a discharge bin of said plurality of discharge bins;

each item having a first rate of travel that is slowed to a second rate of travel as its leading end encounters said nip;

said opposed rollers of said nip cooperatively rotating in opposite directions with one another at a common speed to feed said items toward a discharge bin of said plurality of discharge bins.

7. (Previously Presented) The machine of claim 6, further comprising:

a vacuum block mounted downstream of said protruding rollers, between said protruding rollers and said nip;

said vacuum block applying a suction to respective trailing ends of items as the respective trailing ends of said items clear said protruding rollers and are snapped out of the way of items;

whereby said respective trailing ends of said items traveling from said protruding rollers to said nip are subjected to a vacuum and thus any bouncing of said items caused by the snapping action of the O-rings is inhibited.

8. (Previously Presented) The machine of claim 6, further comprising:
an air nozzle mounted downstream of said protruding rollers, between said protruding rollers and said nip;

said items being envelopes having flaps;

said air nozzle applying a positive air pressure to respective flaps of envelopes as the respective trailing ends of said envelopes clear said protruding rollers and are snapped by said O-rings out of the way of the respective leading ends of the trailing items;

whereby said respective flaps are pushed into overlying relation to a main body of said envelopes so that said flaps are not rammed by the flaps of said trailing items.

9. (Original) The machine of claim 6, further comprising:
a sensor positioned in substantial registration with said protruding rollers that determines whether two contiguous items are longitudinally spaced apart from one another by a predetermined distance;

said sensor operable to stop rotation of said opposed rollers of said nip for a predetermined period of time if the gap between said two contiguous items is greater than said predetermined distance so that said gap is shortened to a distance within said predetermined distance.

10. (Previously Presented) The machine of claim 1,
said pivotally-mounted friction belt being positionable in an infinite number of pivotal positions of adjustment between said fully unpivoted and fully pivoted positions;
the amount of driving force imparted to envelopes exiting said hopper being variable by adjusting the amount of pivoting of said pivotally-mounted friction belt.

11. (Original) The machine of claim 1, further comprising:
a separator sheet feeder positioned downstream of said printing and drying station and upstream of said elongate discharge apparatus;
said separator sheet feeder adapted to insert a separator sheet between contiguous bundles of said items.

12. (Previously Presented) A machine, comprising:
an elongate conveyor system for transporting items to a hopper;
a printing and drying station where ink is applied to said items and dried;
an elongate discharge apparatus;

said elongate discharge apparatus including a plurality of longitudinally-spaced apart deflectors for diverting preselected items from a first path of travel to a second path of travel;

said elongate discharge apparatus including a plurality of bins, there being as many bins as there are deflectors;

said printing and drying station being disposed in interconnecting relation to said elongate conveyor system and said elongate discharge apparatus;

a plurality of elongate O-rings rotatably mounted on said elongate discharge apparatus along said second path of travel in parallel, vertically spaced apart relation to one another;

a plurality of elongate flat belts rotatably mounted on said elongate discharge apparatus along said second path of travel in parallel, vertically spaced apart relation to one another and in confronting relation to said plurality of O-rings;

said plurality of O-rings and said plurality of flat belts rotating in opposite directions at a common speed so that items sandwiched between them are transported along said second path of travel;

a plurality of vertically spaced apart protruding rollers positioned in protruding relation to said second path of travel so that items traveling along said second path of travel are constrained to deviate from said second path of travel upon encountering said plurality of protruding rollers;

said items, upon deviating from said second path of travel, causing said O-rings to displace from respective positions of repose;

resiliency of each O-ring of said first plurality of O-rings snapping a trailing end of each item back into the second path of travel as each item clears the protruding rollers so that the trailing end of a lead item does not interfere with a leading end of an item in trailing relation to said lead item.

13. (Previously Presented) A machine, comprising:

an elongate conveyor system for transporting items to a hopper;

a printing and drying station where ink is applied to said items and dried;

an elongate discharge apparatus;

said elongate discharge apparatus including a plurality of longitudinally-spaced apart deflectors for diverting preselected items from a first path of travel to a second path of travel;

said elongate discharge apparatus including a plurality of bins, there being as many bins as there are deflectors;

said printing and drying station being disposed in interconnecting relation to said elongate conveyor system and said elongate discharge apparatus;

a plurality of vertically spaced apart protruding rollers positioned on said elongated discharge apparatus in protruding relation to said second path of travel so that items traveling along said second path of travel are constrained to deviate from said second path of travel upon encountering said plurality of protruding rollers;

a nip defined by a pair of opposed rollers;

said nip being longitudinally spaced apart from and disposed between said protruding rollers and a discharge bin of said plurality of discharge bins;

an air nozzle mounted downstream of said protruding rollers, between said protruding rollers and said nip;

said items being envelopes having flaps;

said air nozzle applying a positive air pressure to respective flaps of envelopes as respective trailing ends of said envelopes clear said protruding rollers,

whereby said respective flaps are pushed into overlying relation to a main body of said envelopes so that said flaps are not rammed by the flaps of trailing items.

IX. Evidence Appendix

None.

X. Related Proceedings Appendix

None.